**CS353**

**Homework 1**

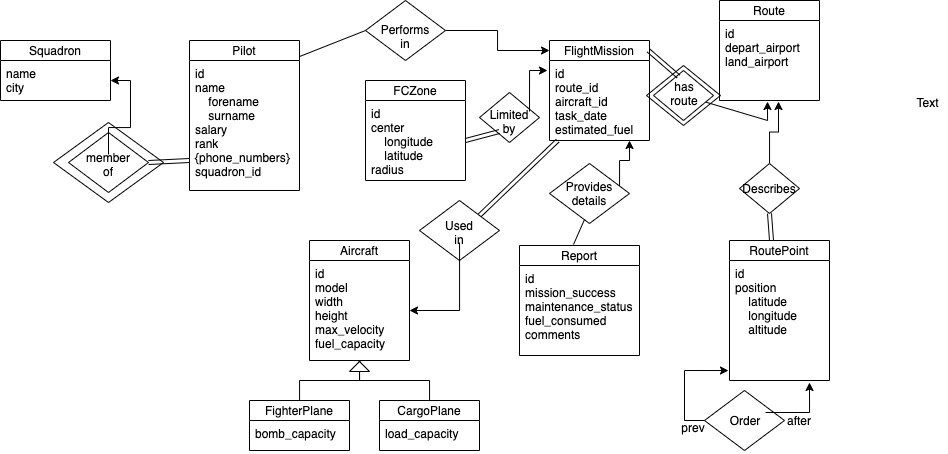
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**CS353 – Section 2**

**24 Feb 2020**

**Part A: ER Diagram**

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**Part B: Relational Schema**

FlightMission = (id, route\_id, aircraft\_id, task\_date, estimated\_fuel)

Foreign Key “aircraft\_id” references from “id” in “Aircraft” table

Foreign Key “route\_id” references from “id” in “Route” table

Report = (id, mission\_id, mission\_success, maintenance\_status, fuel\_consumed, comments)

Foreign Key “mission\_id” references from “id” in “FlightMission” table

FCZone = (id, center, radius)

“center” column contains values for longitude and latitude

Aircraft = (id, model, height, width, max\_velocity, fuel\_capacity)

CargoPlane = (id, load\_capacity)

Foreign Key “id” references from “id” in “Aircraft” table

FighterPlane = (id, bomb\_capacity)

Foreign Key “id” references from “id” in “Aircraft” table

Route = (id, depart\_airport, land\_airport)

RoutePoint = (route\_id, position)

Foreign Key “route\_id” references from “id” in “Route” table

Position columns contains values for latitude, longitude and altitude

Order = (previous\_id, next\_id)

Foreign Key “previous \_id” references from “id” in “RoutePoint” table

Foreign Key “next \_id” references from “id” in “RoutePoint” table

Pilot = (id, squadron\_id, name, rank, salary, phone\_number)

Foreign Key “squadron \_id” references from “id” in “Squadron” table

Squadron = (name, city)